

Electronic Supplementary Information

Synthesis of porous SnO₂ nanocube anodes for Li-ion batteries

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Table 1. The pore volume and specific surface area data of CaSnO₃, S8, S10, S12, S14 and S16.

Sample name	pore volume (cc/g)	Specific surface area (m ² /g)
CaSnO ₃	0.008	9.16
S8	0.332	150.82
S10	0.257	113.23
S12	0.164	86.24
S14	0.116	74.65
S16	0.092	60.39

Table 2. The pore volume and specific surface area data of $\text{CaSn}(\text{OH})_6$, M1, M2 and M3.

Sample name	pore volume	Specific surface area
	(cc/g)	(m^2/g)
$\text{CaSn}(\text{OH})_6$	0.006	6.26
M1	0.121	106.35
M2	0.244	117.34
M3	0.293	155.33

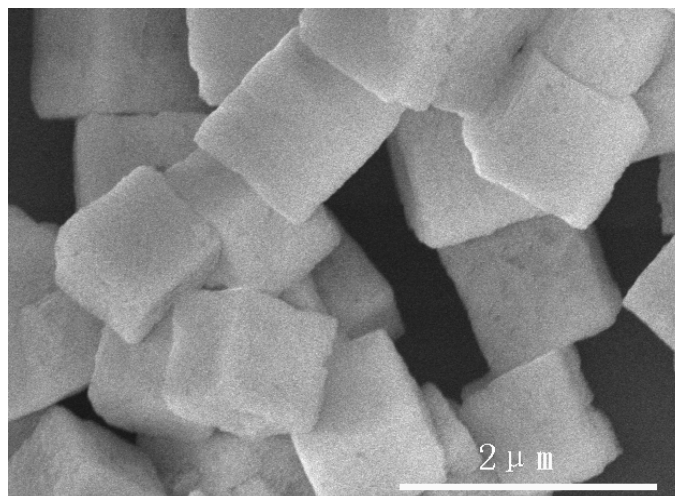


Figure S1. SEM image of $\text{CaSn}(\text{OH})_6$ microcubes.

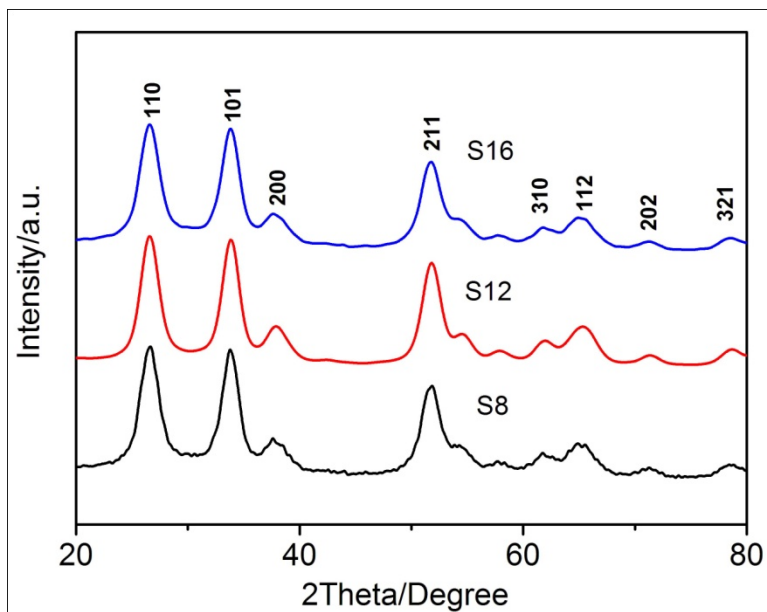


Figure S2. XRD patterns of S8, S12 and S16.

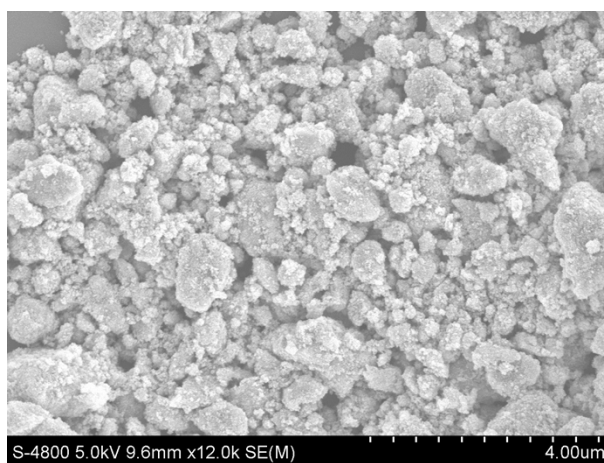


Figure S3. SEM image of the irregular SnO_2 nanoparticles agglomerate obtained by CaSnO_3 cubes immersed in $8\text{mol}\cdot\text{L}^{-1}$ nitric acid for 16 h.

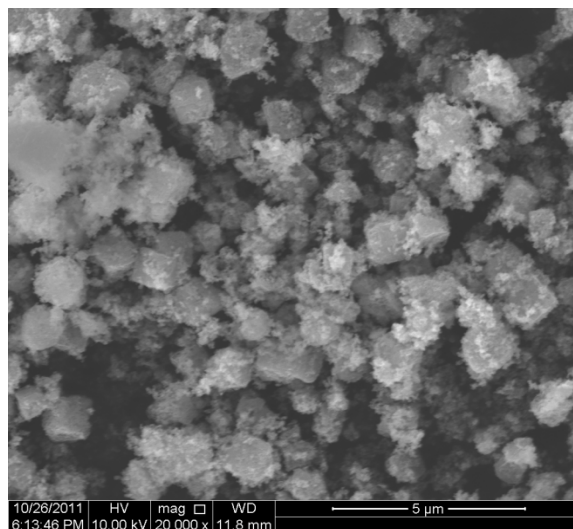


Figure S4. SEM image of the SnO₂ product obtained after 6 h HNO₃ treatment. The products are consisted of damaged cubes and irregular nanoparticles.

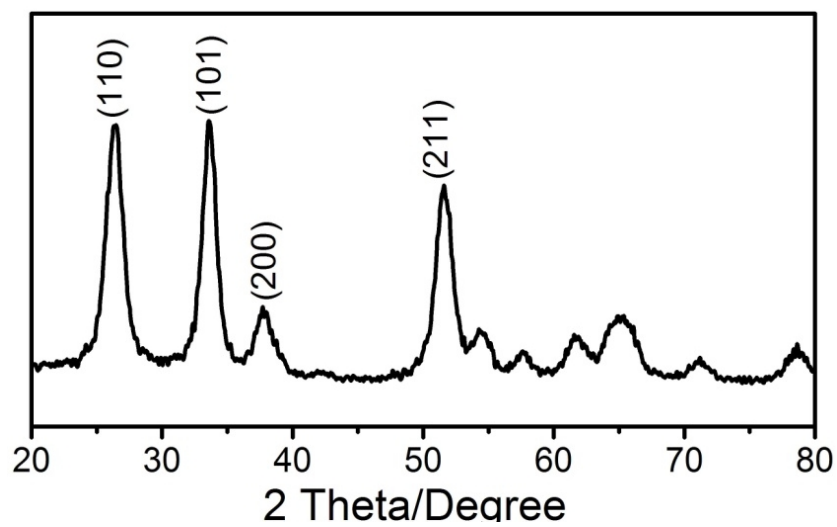


Figure S5. XRD patterns of S2.

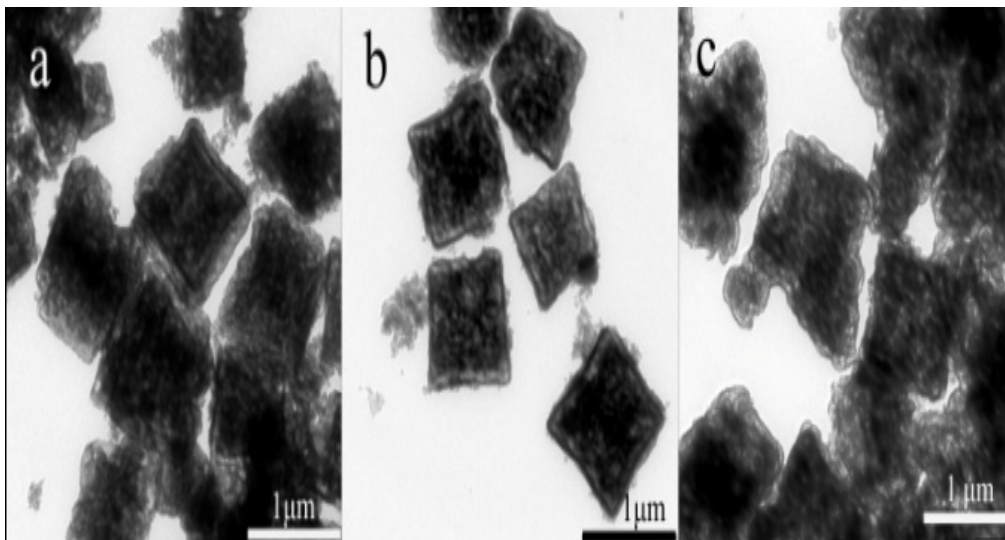


Figure S6. TEM images of a) S8, b) S10 and c) S14 at the end of 10th charge/discharge cycle.